

REMARKS

This Amendment is submitted in response to the Office Action dated March 18, 2008.

Claims 7-9 are herein canceled. Thus, claims 13 through 20 remain pending in the application.

The Examiner objects to a minor informality in the Specification in the form of a grammatical error in paragraph [0030]. A correction is made herein as directed by the Examiner.

Claims 9 and 15 were rejected for failing to particularly point out and distinctly claim the invention under 35 U.S.C. § 112 due to their use of the registered trademark “Mylar” to further exemplify polyester film. The reference has been removed and the rejection is thus mooted.

Claim 19 was rejected under 35 U.S.C. § 112 for lack of an antecedent basis for “the second finish coat.” As the Examiner identified, this was a result of an error in the dependent claim reference and has been corrected by amendment herein.

Claims 7-9 and 13-20 are rejected as obvious under 35 U.S.C. §103(a) and therefore unpatentable over Tandeau De Marsac (FR Patent No. 2784329) (“Tandeau”) in view of Deubel (US Patent No. 2,116,752) (“Deubel”). Claims 7-9 are herein canceled. With respect to claims 13 and 17, the Examiner acknowledges that Tandeau does not explicitly teach the application of a clear lacquer/resin over the wing, but contends that Deubel does so teach. (Official Action Page 5, Ins. 4-5). The Examiner further asserts that it would have been obvious to one skilled in the art to combine the teachings of Tandeau and Deubel “in order to provide increased protection for the fragile butterfly wing.” (Official Action Page 6, Ins. 1-2). The applicant respectfully traverses.

There is nothing in either reference or in the Examiner’s Official Action to support the conclusory assertion that the combined teaching provides increased protection for an insect wing. In fact, the combination of the two references offers no improvement in protection of a butterfly wing as compared to each reference alone. Combining as the Examiner does results in replacing one of Tandeau’s film layers with a layer of varnish or resin. That such a one-for-one

replacement should result in greater protection for the wing simply fails to find support as a logical conclusion.

As the Supreme Court stated in *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007), the key to supporting an obviousness rejection is the clear articulation of the reason(s) why the claimed invention would have been obvious. (See MPEP §2142.) The analysis supporting a rejection under 35 U.S.C. § 103 should be made explicit and such rejections cannot be sustained with mere conclusory statements but must be based on some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. (MPEP § 2142 citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) see also *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396. The Examiner's assertion fails to provide the "rational underpinning" required to support the legal conclusion of obviousness. The Examiner's failure to articulate a plausible reason why the claimed invention would have been obvious results in a failure to make a *prima facie* case of obviousness such that the rejection cannot be sustained.

Interestingly, the Examiner cites to Deubel for the application of a clear lacquer/resin, the purpose of which in the present invention is not to increase the overall protection of the wing as compared to a film, but to allow sealed encapsulation of the wing without the need for a perimeter edge. The use of two opposing film layers as suggested in both Tandeau and Deubel requires at least a small area of each layer beyond the limits of the wing in order to seal the layers to each other and encapsulate the wing. In such a scenario it is not possible to trim the layers at the claimed cutting step to conform exactly to the "outer perimeter of said insect the wing" without rupturing the seal. The area of each layer beyond the limits of the wing is unsightly but can be eliminated using the present method.

In addition to failing to make a case for prima facie obviousness, the Examiner has overlooked certain limitations of the present claims and has given the prior art references undue credit. Specifically, and with respect to claims 7, 13, 16 and 17 the Examiner credits Tandeau in paragraph [0004]¹ with utilization of a fixative as claimed in the present invention. Tandeau, in paragraph [0004] or elsewhere makes no suggestion or mention of the use of a fixative. Paragraph [0004] sets forth the construction of a butterfly wing (having both a ribbed membrane and colored scale layer), the application of an upper transparent adhesive film and a lower adhesive film to protect the wing,² and the variety of ways the it can be applied to objects due to its thinness and flexibility (as a result of removing the ribbed membrane).

Tandeau implicitly recognizes the problem that use of the fixative is intended to solve which is the dulling of the colors of the scales on contact with adhesive, but does not solve it. Tandeau [0004]. Tandeau, rather, avoids the problem altogether by simply not using adhesives or resins that saturate or react with the scales, stating, “La Nature sans solvants adhésifs utilisés ne provoque aucune réaction chimique susceptible de ternir les couleurs irisées.” This significantly limits the number of usable adhesives and resin. The present invention solves this problem by utilizing the claimed fixative which prevents saturation of the scale layer and allows the use of resins to protect the wing.

As Tandeau begins to explain in [0004], butterfly wings are made of chitinous layers or membranes that are supported by tubular veins. Covering these layers are thousands of colorful scales. The multitude of colors come from pigmentation in the scales. Micro structures in the scale ends also play a roll in the iridescent color characteristics of some butterflies by interfering

¹ With respect to claim 16, the Examiner on page 7 lines 19-20 of the Official Action asserts the disclosure in the prior art of a fixative without any reference to a particular location in said prior art. It is presumed that the Examiner intended to reference Tandeau paragraph [0004] as he did with respect to claims 7 and 13.

² It should be noted that Tandeau does not actually protect the entire wing but, as detailed in [0007] removes the colored scale layer from the ribbed membrane, which is discarded.

with light wavelengths. Use of resins and solvents can saturate the scale layer, dissolving pigmentation or interfering with the way light is reflected. This is so because an object's color is determined by the light that hits the object and is returned to the eye. So, for example, when white light hits an "orange" butterfly wing, some of the light is transmitted, refracted, reflected or absorbed such that only the orange wavelength is returned to the eye. When solvents or resins saturate the surface of the wing, the manner in which the light is transmitted, refracted, reflected or absorbed is changed such that less light is returned to be received by the eye and the wing is thus perceived as duller and distorted in color.

Fixatives such as those referenced in the present specification (Paul Mitchel Finish Super Clean Spray) include octylacrylamide/acrylates/butylaminoethyl methacrylate copolymer, a form of methacrylate or acrylic resin. When applied lightly by aerosol or other spray means this material seals the scale layer of the wing sufficiently and without significantly changing the way light interacts with the scales to prevent later applied resins from significantly doing so. While Tandeau recognized the problem, he failed to appreciate its cause and simply avoided it altogether by utilizing dry adhesives on a film backer that did not saturate or alter the scale layer. Deubel barely suggests the use of a lacquer, but fails to even observe the problem, much less solve it. The present invention solves the problem, and is patentably distinguishable, by its use of a fixative to seal the layer without distorting prior to application of resin.

Additionally, and with respect to claims 7, 13 and 17, the Examiner asserts that the cutting step of cutting along the outer perimeter of the insect wing to remove the excess *sheet* would have been obvious to one skilled in the art when attempting to manufacture jewelry. As already described, when utilizing the multiple sheet methods of the prior art, it is not possible to cut precisely along the edge of the wing without rupturing the seal made by the two layers

adhering to one another beyond the limit of the encapsulated wing. The area of each layer beyond the limits of the wing is unsightly, and it is one of the stated object of the present invention to eliminate this unsightly edge and present the insect wing as it would appear naturally. The unsightly edge can be eliminated using the present method but must remain to seal the sheets together in the prior art. Observe that both of Deubel's claims specifically acknowledge the inability to eliminated the perimeter edge stating that the backing and cover films "project[] with its rim beyond the edges of the butterfly design." Deubel claims 1 and 2.

The applicant thus traverses the Examiner's Official Notice that the cutting step would have been obvious when making jewelry because the applicant's cutting step simply cannot be accomplished as claimed herein using either (or both) the methods disclosed in the prior art. Any assertion of Official Noticed by the Examiner should be of notorious character and serve only to "fill in the gaps" in an insubstantial manner which might exist in the evidentiary showing made by the Examiner to support a particular ground for rejection. MPEP § 2144.03 citing *In re Ahlert*, 424 F.2d at 1091, 165 USPQ at 420-21. It is never appropriate to rely solely on common knowledge in the art without evidentiary support in the record as the principal evidence upon which a rejection was based. MPEP § 2144.03 citing *In re Zurko*, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). The Examiner's Official Notice that the applicant's cutting step would have been readily appreciated in the jewelry manufacturing does much more than simply "fill in the gaps" of the present process and fails to appreciate the deficiencies of the prior art with respect to this step. Additionally, the Examiner's Notice is entirely lacking in evidentiary support and, moreover, is contrary to the disclosures of the cited references.

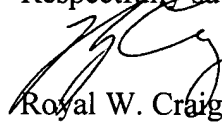
The Examiner's failure to present a rational underpinning for the asserted obviousness rejection renders such *prima facie* rejection unsustainable. The Examiner further fails to consider

or cite in the prior art all of the limitations of the present invention and takes improper notice that certain method steps would be readily apparent in light of the prior art when in fact they are impossible under the prior art. Claims 13, 15, 17 and 19 have been amended to address the concerns of the Examiner, for clarity and to highlight the differences between the present invention and the prior art. Claim 16 incorporates these limitations by reference and is patentably distinct for the same reason cited above. Claims 14 and 18-20 are but additional recitations and are therefore patentably distinct as are the claims from which they depend.

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In view of the above amendments and remarks, it is believed that this application is now in the proper condition, and a Notice of Allowance is respectfully requested.

Respectfully submitted,



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